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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,157	08/10/2001	Katsumi Tsukamoto	1137-827	3642

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EXAMINER

CONTEE, JOY KIMBERLY

ART UNIT	PAPER NUMBER
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2686

5

DATE MAILED: 02/27/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,157

Applicant(s)

TSUKAMOTO ET AL.

Examiner

Joy K Contee

Art Unit

2686

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1, 2 and 6-8 are rejected under 35 U.S.C. 102(e) as being anticipated by O'Neill et al. (O'Neill), U.S. Patent No. 5,987,099.

Regarding claims 1 and 7, O'Neill discloses a cell switching device (and method) characterized by comprising:

measuring means (i.e., reads on base station) for measuring a field intensity with respect to a plurality of base stations adjacent to a base station servicing a mobile station (col. 3.,lines 1-22) ;

switching means (i.e., reads on arbitrator) for referring to results of the measurements provided by said measuring means and switching, when the field intensity of a base station exceeds a reference intensity, to that base station for communication with the mobile station (col. 13,line 65 to col. 14,line 60; and

control means (i.e., reads on within base station) for controlling a time interval for field intensity measurement, in the measuring means, with respect to the base stations, taking into consideration an increasing or decreasing tendency of the field

Art Unit: 2686

intensity (i.e., reads on if after a long term average of the RSSI level is measured (between 5s to 15s) lower than the RSSI level required, the base stations will continue scanning and if the other radio base stations have long term averages higher than RSSI required level, the scanning will cease, hence time interval will be reduced) with respect to the base stations measured by the measuring means (col. 16, line 33 to col. 18, line 59).

Regarding claims 2 and 8, O'Neill discloses the cell switching device (and method) according to claims 1 and 7, respectively, characterized in that:

said control means reduces the time interval for field intensity measurement with respect to a base station as the field intensity undergoes an increase, and extends the time interval for field intensity measurement with respect to the base station as the field intensity undergoes a decrease (i.e., reads on if after a long term average of the RSSI level is measured (between 5s to 15s) lower than the RSSI level required, the base stations will continue scanning and if the other radio base stations have long term averages higher than RSSI required level, the scanning will cease, hence time interval will be reduced) (col. 18, lines 16-59).

Regarding claim 6, O'Neill discloses the cell switching device according to claim 1, characterized in that:

said control means is provided in the base station (i.e., base station measures its own RSSI, thus controls measurement intervals within) (col. 18, 16-24).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3-4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill et al. (O'Neill), U.S. Patent No. 5,987,099, in view of well known prior art.

Regarding claims 3 and 9, O'Neill the cell switching device (and method) according to claims 1 and 7, respectively, but fails to explicitly characterize:

said control means controls the time interval for field intensity measurement with respect to the base stations, taking into consideration absolute values of field intensity with respect to the base stations.

Examiner takes official notice that is well known in the art to taking into consideration absolute values of field intensity with respect to the base stations.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify O'Neill to take the absolute values of the RSSI with respect to the base stations for the purpose of measurement techniques and conversion therein (e.g., converted dBm to Volts).

Regarding claims 4 and 10, O'Neill discloses the cell switching device (and method) according to claims 3 and 10, but fails to teach said control means reduces the

time interval for field intensity measurement with respect to a base station as the absolute value of field intensity with respect to the base station becomes large.

Examiner takes official notice that is well known in the art to taking into consideration absolute values of field intensity with respect to the base stations.

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify O'Neill to take the absolute values of the RSSI with respect to the base stations for the purpose of measurement techniques and conversion therein (e.g., converted dBm to Volts).

5. Claims 5 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neill, in view of Levanon, U.S. Patent No. 6,369,754.

Regarding claims 5 and 11, O'Neill discloses the cell switching device (and method) according to claims 1 and 7, respectively, but fails to explicitly characterized in that: said control means controls the time interval for field intensity measurement with respect to a base station, taking into consideration a direction of movement of a satellite.

In a similar field of endeavor, Levanon discloses taking into consideration a direction of movement of a satellite (col. 5, line 56 to col. 6, line 17).

At the time of the invention it would have been obvious to one of ordinary skill in the art to modify O'Neill's control means for controlling the time interval for field intensity measurements with respect to a base station, to include positioning satellite in conjunction with the base station system for the purpose of accurately determining the location of a mobile user.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Almgren et al., U.S. Patent No. 6,212,384, discloses a radio signal source identification system.

Kabasawa, U.S. Patent No. 5,987,013, discloses a handoff control with pilot.

Tuutijarvi et al., U.S. Patent No. 5,524,009, discloses a fast AGC setting using RSSI measurements procedure.

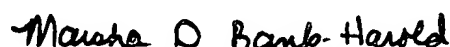
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joy K Contee whose telephone number is 703-308-0149. The examiner can normally be reached on 5:30 a.m. to 2:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 703-305-4379. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-0377.


Joy K. Contee

February 20, 2004


MARSHA D. BANKS-HAROLD
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600